

DEVELOPMENT OF GUIDELINE FOR
BUILDING DEFECTS: CASE STUDY-
SHOPPING MALL

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SUPERVISOR'S DECLARATION

We hereby declare that we have checked this thesis and in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Engineering Technology (Infrastructure Management) With Honors.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Kajian ini dijalankan untuk menyiasat kecacatan bangunan dan masalah berkaitan dengan penyelenggaraan bangunan di bangunan komersial terutama pusat membeli-belah. Objektif utama kajian ini adalah untuk mengenalpasti kecacatan bangunan, menganalisis kesedaran dan perspektif responden tentang masalah kecacatan bangunan dan mengadakan garis panduan penyelenggaraan kecacatan bangunan untuk pusat membeli-belah. Kaedah yang digunakan untuk menjalankan kajian ini adalah pemerhatian, kaji selidik dan sesi temubual. Pemerhatian diadakan di pusat membeli-belah untuk mengenalpasti kecacatan bangunan yang ada dan set borang kaji selidik digunakan untuk mengenalpasti dan menganalisis tahap kesedaran dan perspektif terhadap masalah kecacatan bangunan. Sesi temuduga diadakan bersama tiga orang responden yang merupakan Jurutera - Jurutera Profesional dan Pengurus Operasi yang pakar dalam menguruskan hal-hal berkaitan penyelenggaraan bangunan untuk mendapatkan lebih banyak maklumat yang berkaitan dengan penyelidikan ini.

ABSTRACT

This study was conducted to investigate the building defects and problems associate with building maintenance in commercial buildings especially shopping mall centers. The main objective of the study is to identify building defects, analyze people awareness and perspectives on defects problems and develop a defects maintenance guideline for shopping mall building. The method used to conduct this study are observation, questionnaire survey and interview session. Observation of shopping mall conducted to identify defects exist and sets of question form is used to identify and analyze the level of public awareness and perspective towards building defects problem. Interview session held with three respondents which are Professional Engineers and Operation Manager that expert in managing building maintenance matters to gain more information related to this research.

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LIST OF ABBREVIATIONS

TFM	Total Facilities Management
R1	Respondent 1
R2	Respondent 2
R3	Respondent 3

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Malaysia is one of the fastest-growing economies in South East Asia (Bank, 2008). With first class infra-structures, government of Malaysia is really concern about the importance of building maintenance aspect. Even though the concept of building maintenance has already existed in Malaysia since modern buildings were constructed the typical understanding and approaches require changes in order to suit to the current scenarios and demands. To some parties, maintenance of building is a complicated process and costly but if it is carried out wisely it could save money besides potential extended life span of the building (Suffian, 2013).

With new millennium, city development increase building urban development and encouraging some party to dealing with a major problem which is the building defects. Specifically in this research, building defect on shopping mall building was studied involved it causes, effects, maintenance needed. The shopping mall building is under high rise or mega building category as it builds in big size and can hold large capacity of people. The structure has to be able to produce new design include interior or exterior need to be enhance and decrease the problems affected the building itself.

Poor and improper building maintenance will definitely cause more damages and costly repair works if left unattended. In Malaysia, buildings are built in accordance with British Standard and under strict supervision (Ghassan et al, 2010). Unfortunately the maintenance aspects of the building are still weak. Making it worse, sometimes building maintenance is perceived as merely about the mechanical and electrical system in the buildings without

much consideration given to civil and structural elements. This research paper is to discuss the common maintenance problems and building defects on civil and structural elements that require some maintenance works to sustain excellent performance of the building. (Ahmad Suffian, 2013)

Building structure has their own maintenance procedure, but it needs specific reference or skilled person to handle and give information about the issue. This research intend to build a maintenance guideline for defects issues as the outcome to ease the building manager party to execute maintenance work as soon as they get the report of the issue. Delay of work will be avoided and period of the defects occur can be minimize. The guideline includes the people involved, task, period, specification, defects category and cost of such a defect issues. With this guideline, non-skilled people also can get the imaginary and information about things needed to settle defects problem without hoping advises from skilled person.

Building owners have always been aware of the conditions of their building to avoid panic situation to the customers. So with the guideline, it may ease their work to act quickly as it stated the necessary things in managing the defects. Defects not focus on the structural only, but for shopping mall building, defects also come from the mechanical, electrical, water system, thermal condition, doors, windows and glass. Each item will give different effect to the building and affect the value of the building.

1.2 Problem Statement

Development is increasing in this era of globalization but there are various problems involving the structure of the building which causes the value of the building itself to decrease. Building deformities or defects are particularly noticeable directly and clearly then indicating the lack of the building itself. Defect was a main problem at shopping mall. Therefore, the need of maintenance guidance for maintaining the shopping mall performance is very important to solve problem like poor building maintenance, unattended defects and unfamiliarity of authorities with defect requirements. However, people are well versed in observing the defect only but the element involved in the defect maintenance process is difficult to identify.

There are separate resources to find the elements involve in defects management but this research is intended to gather all the references together in one piece of guideline. With this guideline, shopping mall building performance can be improving with zero defects issues. In addition, identification of standard specification of material that suitable to use on shopping mall building also can be list. Not over the structural, the material used to build and operate the building also sometime has defect and not durable to fire emergency such as lift, doors, walkways specification and many more.

1.3 Objectives

The objectives of this research are listed as follow:

- 1) To identify building defects in shopping mall building.
- 2) To analyse people awareness and perspective on defects problems of shopping mall building.
- 3) To develop a maintenance guideline for building defects of shopping mall building.

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